REMARKS

Claims 1 and 9 have been amended to recite that R can be hydrogen, a C_1-C_{20} straight chain hydrocarbon, a C_1-C_{20} branched hydrocarbon or an aromatic group. The Applicants respectfully contend that no question of new matter arises and entry of the amendments is respectfully requested.

Claims 1-17, 19, 21 and 23-30 are before the Examiner for consideration in this application.

New Claims 26-30

New claims 26-30 are supported by at least pages 9-14 of the Specification. In light of previous comments by the Examiner, claim 26 presents a modified Formula I in which the copper component of the formula includes a "z" subscript to avoid the need for fractional subscripts for "x" and "y" on the anion portion(s) of the compound. Claim 26 also makes clear that only one anion, specifically "A," need be present in the cupric compound and that, if present, anion "B" will be a hydroxyl group. The Applicants further note that claim 26 also provides that "purifying" the cupric solution involves at least removing substantially all of the flocculation inducing ions from the initial solution, thereby preventing cation (particularly metal ion) induced flocculation that would tend to destabilize the resulting sol and prevent the formation of the claimed colloidally stable aqueous sol. The Applicants also note that claim 30 is supported by at least Examples 6-8.

Enablement

The Applicants respectfully maintain that the identification of "A" and "B" anions suitable for forming a slightly soluble or insoluble cupric compound may be performed without undue or unreasonable experimentation. The Applicants submit that it is well established that a considerable amount of experimentation is permissible, if merely routine, or if the specification provides a reasonable amount of guidance with respect to the direction in which the experimentation should proceed. *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988). Moreover, even if such experimentation may fairly be labeled as complex, complex experimentation is not necessarily undue, if the those of ordinary skill in the art typically engage in such experimentation. *In re Certain Limited-Charge Cell Culture Microcarriers*, 221 U.S.P.Q. 1165, 1174 (Int'l Trade Comm'n 1983); *Massachusetts Institute of Technology v. A.B. Fortia*, 774 F.2d 1104 (Fed. Cir. 1985).

In this instance, the Applicants respectfully contend that the solubility of a wide variety of cupric compounds is known within the art and that the composition of the cupric compounds provides the necessary information regarding the particular anions that would be required to produce such a compound. This widespread and easily accessible knowledge, coupled with the relative few steps necessary to practice the claimed invention, are sufficient to enable the present method and allow those of ordinary skill in the art to determine whether efforts to produce a colloid from a particular cupric compound would fall within the scope of the present invention.

Anticipation and Obviousness

The term "colloid" as used in copper compounds is conventionally used, somewhat imprecisely, to describe compositions in which a copper compound is initially suspended in a continuous liquid phase, but is subject to relatively rapid precipitation. As noted in Brasch, conventional copper "colloids" use thickening agents such as gelatin to provide compositions that are "sufficiently stable," *e.g.*, will not rapidly precipitate. For example, some colloidal copper compounds separate from the solution within hours and some copper compounds take days to separate. However, by the time consumers receive the "colloid" solution, the solution has separated to a clear supernatant and a sedimented solid on the bottom. As a result, the consumers have to shake the product before each use to recreate a suspension.

Conversely, colloidal cupric compounds according to the present invention are formed at dimensions on the order of 1 μm or less and, as a result of the purification of the aqueous cupric solution, do not exhibit the flocculation or aggregation inherent in the prior art "colloidal" compositions. Thus, the inventive colloidal cupric compounds demonstrate an unexpectedly degree of stability that is neither taught, suggested nor achieved by the applied prior art references and render them more useful for certain applications, particularly as topical fungicides, as a result of the relatively small dimensions of the particles.

CONCLUSION

In view of the above remarks and amendments, the Applicants respectfully submit that each of the pending claims is allowable over the applied prior art references. A notice to that effect is respectfully requested.

If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to contact the undersigned.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge any underpayment or non-payment of any fees required under 37 C.F.R. §§ 1.16 or 1.17, or credit any overpayment of such fees, to Deposit Account No. 08-0750, including, in particular, extension of time fees.

Very truly yours,

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